The impact of self-talk on college students' self-esteem, educational self-efficacy, and mood

Amanda Carroll

x19405836

BA (Hons) Psychology

Submitted to the National College of Ireland, March 2022

Supervisor: Dr. Amanda Kracen

Submission of Thesis and Dissertation

National College of Ireland
Research Students Declaration Form
(Thesis/Author Declaration Form)

Name: Amanda Carroll

Student Number: x19405836

Degree for which thesis is submitted: BA (Hons) in Psychology

Title of Thesis: The impact of self-talk on college students' self-esteem, educational self-efficacy, and mood

Date: 26/03/2022

Material submitted for award

A. I declare that this work submitted has been composed by myself.

B. I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged.

C. I agree to my thesis being deposited in the NCI Library online open access repository NORMA.

D. I declare that no material contained in the thesis has been used in any other submission for an academic award.

Acknowledgements

I would like to take this opportunity to thank all those who supported me during my research study.

Firstly, I would like to express my utmost appreciation to my supervisor and lecturer, Dr Amanda Kracen. Thank you for your invaluable knowledge and understanding. You have given me encouragement, support, and kindness throughout this educational journey. I am grateful for your genuine belief and enthusiasm in not only me but also my ideas since the beginning of this study.

To Dr Michelle Kelly, thank you for the support, understanding, and guidance you provided me with throughout the process of writing this thesis. I would also like to acknowledge Conor Thompson for your continuous guidance, valuable feedback, and support throughout these past three years, and to all of the NCI teaching and support staff who have continuously supported me. My heartfelt appreciation to my family and friends. Without whom, none of this would have been possible.

I would like to express my sincere gratitude to my Grandparents, Catherine, and Derek Carroll, who have always been the biggest source of inspiration in my life. Thank you for your endless love, support, and patience, especially throughout these last three years. Thank you for believing in me, encouraging me to be the best person I can be, and to follow my dreams. Thank you for this wonderful opportunity for an education. Without you both, I would not be where I am today. I want to show further appreciation for my siblings, who have motivated me to succeed. I hope you are all proud. Finally, I would like to kindly thank all those who participated in my study as without you all, it would not have been possible.

Abstract

Aim: The aim of the study was to investigate the impact that self-talk can have on students' self-esteem, educational self-efficacy, and mood. Our self-talk is important in various ways. It is essentially the script that we use to frame our lives. The words we use can impact our emotions, well-being, and our behaviour. Our self-talk can be a great tool, or it can be damaging. It is vital to highlight that our thoughts and emotions are interrelated. **Method:** A questionnaire was provided to participants ($N = 112$) via social media platforms, including Twitter and Facebook. It consisted of questions from The Brief Mood Introspection Scale, Rosenberg's Self-esteem Scale, Self-talk Scale, and an Educational Self-efficacy Scale. **Results:** Results suggest that positive and negative self-talk engagements were significantly associated with self-esteem, educational self-efficacy, and mood, and both variables statistically predicted the dependent variables in the regression analysis. Finally, there were no statistically significant differences between gender types. **Conclusion:** The findings highlight the importance of self-talk engagement and enhance our understanding of the impacts it can have on students. Notably, the study indicates the need for future research in this area to determine how students continuously apply self-talk as they progress through different stages of education.

Table of Contents

Chapter 1: Literature Review

Self-talk is our internal dialogue. The subconscious mind influences our self-talk, revealing a person's thoughts, ideas, questions, and beliefs. This literature review will analyse current research on the topic of self-talk, including an in-depth examination of the relationship between self-talk, self-esteem, educational self-efficacy, and mood and the impact it has on college students.

Self-talk

The earliest discussions and analyses of the relationship between self-talk and thinking emerged in ca. 369 BC by Plato (Jowett, 2011). Plato discovered that there is a relationship between our thinking and self-talk; the concept of self-talk has subsequently been recognised as an essential element in human psychology. It has been recognised by philosophers and, more recently, psychologists. For example, Vygotsky found that self-talk plays a role in developing higher mental functions, which derives from the internalisation of social interaction (Geurts, 2018).

Daily, we engage in self-talk whether we are consciously aware of it. Many of us can be unconscious of our thoughts (Helmstetter, 1982, p. 48). This is because our thoughts are constant and happen automatically. Our behaviour, mood, and attitudes are all affected by our self-talk. Self-talk is a fundamental procedure in managing our behaviour. Individuals use self-talk to explain their feelings and beliefs and to provide themselves with encouragement and instructions (Hackfort & Schwenkmezger, as cited in Hardy, 2006). Since self-talk is a cognitive process that individuals constantly repeat, it is considered a form of conversation with one-self. The relationship between individuals' self-talk, behaviour, and thinking first began through research conducted by Vygotsky (1934). His research suggests that part of a child's thinking development is formed through their engagement in self-talk; first they speak to themselves out loud (private speech), then they progress to speaking to themselves silently

(inner monologue). The words they use during these conversations are learned from interacting with others in a social environment. Children regulate their behaviour and organise themselves through engaging in self-talk but treat it as if they were talking to another person (Vygotsky, 1934; Winsler, 2009). The concept of self-talk is familiar to people all around the world (Mead, 1934). According to a definition provided by Theodorakis and colleagues, self-talk is what people say to themselves internally or out loud (Theodorakis et al., 2000, p.254). This definition indicates that self-talk includes two important features. Firstly, self-talk can be either overtly or covertly, and secondly, it is statements directed and oneself and not others. Theodorakis and colleagues' definition of self-talk may be oversimplified, meaning it may be failing to recognise the full potential of engaging in self-talk.

In general, positive self-talk is a technique that can enhance performance, motivation, self-esteem, and concentration. In contrast, negative self-talk is seen as self-demeaning, critical, and can negatively affect performance levels as it can lead to an increase in levels of anxiety and insecurity (Weinberg & Gould, 2006). A factor that can directly influence self-talk is a person's locus of control. Locus of control is an individual's perception that they can control the events in their life. Therefore, higher levels of positive self-talk correlate with a strong locus of control (Jemmer, 2009).

Positive and Negative Self-Talk

There are two types of self-talk: positive and negative. Neck and Manz (1992) explore the differences between positive and negative thought patterns, describing positive thinking as "opportunity thinking" and negative thinking as "obstacle thinking". Like Neck and Manz, Basset also differentiated between positive and negative self-talk. Bassett coined the term "compassionate self-talk" and described it as any form of dialogue with yourself or others that makes you feel good (Bassett, 1995). She discussed how powerful positive and negative

self-talk can be and how it can be associated with how we feel. The negative emotions mentioned originate from feelings of unsatisfactory or failure (Cheavens et al., 2006). Moreover, both positive and negative thoughts can produce conflicting emotions (Neck & Manz, 1992, p. 693).

Positive self-talk assists with enhancing students' self-esteem and regulating their behaviour in a positive manner. Students that make use of positive self-talk are controlling and observing their activities (Oliver et al., 2010). The phrase inner dialogue and self-talk have both been used by Beck (1976) and Meichenbaum (1977) to commonly refer to the negative inner voice that typically promotes self-doubt and caution which, over time, can negatively influence our self-worth and self-esteem (Palmer & Williams, 2013). Negative self-talk often has an adverse effect on our emotions, while also enhancing anxiety levels. Negative self-talk can often be referred to as self-attacking, self-neglecting, self-blaming, and self-controlling (Jemmer, 2009). A person's locus of control is involved in our engagement in negative self-talk, as we often believe that we cannot control what occurs in our lives (Jemmer, 2009). Due to the extremely automatic nature of negative thoughts, they are hard to prevent. However, these thoughts are learned behaviours, indicating that they can be unlearned. Another line of thought on learning and unlearning negative thoughts, Beck (1976) states that our internal dialogue can occur subconsciously, though we have the ability to learn how to recognise it, and, for that reason, develop the skills to monitor and replace these thoughts if necessary.

Self-talk and self-esteem

Self-esteem can be described as how a person emotionally values their self-worth (Wilder, 1971). A direct association between depression levels and levels of self-esteem have been discovered since 1978 (Battle, 1978; Sowislo & Orth, 2013). Furthermore, research performed by Hudd and colleagues illustrated that individuals who experience increased

levels of stress recorded lower self-esteem (Hudd et al., 2000). These findings are problematic for undergraduate students, as existing literature suggests that third level education students endure greater levels of stress than the general population (Beiter et al., 2015; Kumaraswamy, 2013). The combination of this stress and the higher levels of depressive symptoms in undergraduates (Dyson & Renk, 2006; McLafferty et al., 2017; Pacheco et al., 2017; Price & Smith, 2019; Syed et al., 2018; World Health Organisation, 2016), causes an area of concern as they are at a higher risk of enduring low self-esteem (Hudd et al., 2000). The findings of a study conducted by Dixon and Kurpius suggest that self-esteem, gender, and mattering explained 13.8% of stress variance and 39.4% of depression variance (Dixon & Kurpius, 2008). Likewise, other studies indicate that high levels of depression and low levels of self-esteem were the two principal factors that may influence suicidal thoughts in third level education students (Creemers et al., 2012; Dieserud et al., 2001).

The results of numerous studies (Burnett, 1994; Kent & Gibbons, 1987; Lamke et al., 1988) indicate that there are higher levels of self-esteem found in participants that use more positive self-talk than negative self-talk. Burnett (1994) examined the relationship self-esteem has with self-talk. The test was conducted through interviews with the participants. The results illustrate that positive self-talk had a positive correlation with the development of self-esteem. However, other studies contrast these results. They found that a higher frequency of negative self-talk statements, rather than positive ones, influenced higher levels of psychological well-being in their participants (Kendall et al., 1989; Philpot et al., 1995). The participants in the studies where positive self-talk influences self-esteem levels are from primary school level education, and some are adolescents, so it will be interesting to see if the same results are derived from the current study which focuses on third level education students, or if the results will replicate the contrasting studies.

Self-talk and educational self-efficacy

Although self-talk is very prevalent in our daily lives, it is a phenomenon that academic psychology has shown little interest in. However, a considerable amount of interest has been portrayed in applied settings due to the relationship it has been proven to have with performance, which is evident in academic settings (DeCaro et al., 2010; Winsler & Naglieri, 2003), employment settings (Brown, 2003; Latham & Budworth, 2006), artistic settings (Broomhead et al., 2012), and more notably in sports (Hardy, 2006; Hatzigeorgiadis et al., 2004; Theodorakis et al., 2000). Considering this, research has gradually advanced towards establishing the functions and mechanisms of self-talk which cause an effect on performance (Hatzigeorgiadis et al., 2008), although further research must be conducted in academic settings, focusing on the effects that self-talk has on educational self-efficacy.

As stated by Bandura, the fundamentals of human functioning are made up of our self-efficacy beliefs (Bandura, 1977, 1986; Bandura et al., 1999). Having the required knowledge and skills to complete a task is not enough; the individual must also have the belief that they can effectively complete the task under normal and, notably, under challenging conditions. In educational research, self-report surveys are predominantly used to measure an individual's perceived self-efficacy. These surveys assess the participant's belief in their ability to complete requisite tasks (Bandura, 2006). However, educational researchers, in many cases, have miscalculated self-efficacy due to their misinterpretation of how it is measured (Bandura, 2006; Bandura et al., 1999; Pajares, 1996). Consequently, a researcher striving to describe or predict an academic outcome, for example, has a higher probability of finding a strong correlation between self-efficacy and the outcome variable if the self-efficacy scale adheres to the following theoretical recommendations: (1) it evaluates particular aspects of the task and (2) the particularity corresponds to the attributes of the task and domain being evaluated. Therefore, measuring general, contextless aspects will entail

inadequate predictive power, while measuring perceived self-efficacy in specific domains has proven to be a strong predictor in several outcomes, for instance, academic performance (Bandura et al., 1999; Multon et al., 1991).

Since the influential article on self-efficacy by Bandura (1977), there has been an increase in research and supporting evidence that there is a positive correlation between students' educational self-efficacy and academic achievement (Bandura, 1977). Particularly, the evidence has conveyed those students that score higher levels of self-efficacy in several areas of academia choose to participate in tasks that strengthen their knowledge, expertise, and capabilities in their chosen area of study; apply effort when they encounter difficulties; and show longer levels of persistence when faced with difficult tasks (Schunk, 1991; Schunk et al., 2012). Moreover, existing evidence suggests that students who have scored higher in educational self-efficacy also portray better quality in terms of their efforts, by applying deeper cognitive and metacognitive processing approaches than other students who scored lower levels of educational self-efficacy beliefs (Schunk, 1991).

Scheier and Carver stated that in academic settings, individuals detach themselves from achieving their goals when outcomes seem unreachable (Scheier & Carver, 1993). This may be because students feel disheartened and may have thoughts such as "This is difficult, I will not be able to do it". Ultimately, these thoughts affect the students' behaviour, accomplishments, and motivation. When people are more confident and optimistic, they can utilise coping techniques to assist them with creating solutions to problems (Benabou & Tirole, 2002; Curry & Russ, 1985; Scheier & Carver, 1993). Another interesting point to add is that confidence helps with increasing levels of self-esteem as students will have more belief in their capabilities (Benabou & Tirole, 2002). By learning to engage in positive self-talk, the "feelings of self-worth are built on solid foundations that do not require continual validation" (Benabou & Tirole, 2002, p. 884). Students excel in their environment when they

feel confident in their abilities. These findings suggest that confident and capable students can be established, no matter where they lie on the learning spectrum.

In addition to effects on self-esteem mentioned previously, existing theories such as Wolters (2003) and Wolters and Benzon (2013) state that self-talk is a self-regulated strategy for learning. It is used to strengthen persistence and efforts made by students to assist them with goal completion in several learning situations. The theories suggest that self-talk is critical to students' learning. Other research also suggests a close relationship between self-talk and educational practices and students' learning. A study was conducted to examine when and where self-talk in college students occurs most frequently (Morin et al., 2018). The results illustrate that it occurs most when students are studying and driving. Another study carried out by Brinthaupt and Dove (2012) indicates that students who use self-talk more frequently as a motivational strategy achieve higher grades in academia. The results and findings of the research suggest that self-talk may help students enhance their learning and performance, so it will be interesting to see whether results from the current study will correlate with previous results. However, examining the relationship between self-talk and students' learning will be complex as there are limited studies to date that investigate this relationship. The limited research is due to the absence of assessment tools available to carry out the investigation.

Self-talk and mood

Building on from the analysis of literature related to self-efficacy and self-talk, this section will now focus on the relationship between self-talk and mood. The characteristics of self-talk significantly affects our behaviours, emotions, and moods (Payne & Manning, 1998). The more engagement we have in negative self-talk, can make us feel depressed, anxious, or sad, however, frequently engaging in positive self-talk, we are inclined to feel positive, happy, or hopeful (Payne & Manning, 1998). Existing studies suggest that

depression can be significantly predicted through negative self-talk statements (Beck et al., 1979, 2005) and Clarke suggests that this negative internal dialogue is developed through a combination of how we view ourselves and feedback we receive from others (Clarke et al., 1999). While self-talk has been proven to enhance performance in sports (Hardy et al., 2001), a significant absence of its daily advantage and benefits on mental health in particular has been found. Findings from a study conducted by Allison Kelly and colleagues portray that depression levels of the participants dropped significantly after engaging in positive self-talk over the course of 2 weeks, alongside an increase in self-esteem and self-compassion levels (Kelly et al., 2009). However, the main weakness of the study is the fact that the authors used a population that had extreme cases of facial acne which heightened their levels of psychological distress.

Recognising factors that can influence a students' mood and well-being is a continuing concern within education. Previous research examining the emotional well-being of students in third-level education suggests that students experience a higher level of anxiety when first entering higher education; Cooke et al. (2006) and other studies have focused on improving the students' well-being. However, there is limited research exploring ways to influence their well-being, such as positive self-talk. The current study focuses on whether the use of self-talk, whether positive or negative, can influence students' mood in third-level education.

Oliver et al. (2010) carried out research that focused on the relationship between self-talk and well-being in undergraduate students that had just finished their lectures. Results from this study outline a direct positive relationship between informational self-talk and students' well-being, even if the students did not understand all the content from the lecture. However, students who engaged in negative self-talk and had little understanding of the lecture content produced higher anxieties. The result from this study suggests that self-talk

may have both a positive and negative effect on undergraduate students' well-being and that it can be used as an appropriate intervention technique to help develop coping skills during college.

The present study

The purpose of this research is to determine the impact self-talk has on college students' self-esteem, educational self-efficacy, and mood. Understanding the relationship between self-talk and educational self-efficacy will help academic professionals understand which students are most at risk for academic problems. As there is a rise in the rate of depression and mental health disorders in students and young adults (Anderssen, 2013; Beiter et al., 2015; New, 2017; Noguchi, 2014; Novotney, 2014), this paper will also help us understand the relationship between our language and our mood. It is essential to understand the relationship between self-talk and self-esteem as a possible factor to enhance self-confidence in our academic and personal life.

This study will address three research questions and hypotheses:

RQ1: Is there a relationship between self-talk and students' self-esteem, educational self-efficacy, and mood?

Hyp1: There will be a relationship between self-talk, self-esteem, educational self-efficacy, and mood.

RQ2: Will scores on a measure of self-talk predict scores on measures of self-esteem, educational self-efficacy, and mood?

Hyp2: Self-talk scores will significantly predict scores on measures of self-esteem, educational self-efficacy, and mood.

RQ3: Is there a difference in self-esteem between gender types?

Hyp3: There will be a significant difference between genders with regard to self-esteem.

Chapter 2: Methodology

Participants

The participants that engaged in this study were enrolled in third-level education as an undergraduate in Ireland. The original aim for the study was to include 100 participants, however, the total number accumulated to 112 (Female: $n = 89$; Male: $n = 21$; Transgender: $n = 2$). Power analysis was conducted through a G*Power calculation using a two-tailed correlation bivariate for the correlation tests, multiple linear regression for the regression tests, and the difference between three independent means for the one-way ANOVA. The power analysis highlighted that the smallest sample size that would detect a significant effect for the correlation tests was 46. The regression was 48, and the one-way ANOVA was 102, outlining that the total number of participants was suitable for this research. The participants did not partake in any interview process; they were only required to complete a questionnaire. The participants in this study were recruited using convenience sampling and snowball sampling. The study was promoted via a link that was posted on the researcher's social media platforms, including Twitter and Facebook, and it redirected the participants to the Google Form questionnaire. The questionnaire was completely anonymous, meaning the identity of the participants was protected. The participants of the study were required to be enrolled in third-level education as an undergraduate student and must be over the age of 18. This sample was appropriate for the study as the research focused on measuring the effects self-talk has on college students' self-esteem, educational self-efficacy, and mood.

Materials & Apparatus

To assist with the recruitment of participants, a research poster (Appendix H) which included a link to the questionnaire was created using the Canva software and was uploaded to the researcher's Twitter and Facebook feed. The data for the demographic variables (Age & Gender) was derived from the participants answers to the questions presented in the

questionnaire. To test the hypotheses, the updated Brief Mood Introspection Scale (BMIS) was used to measure the participants mood scores (Mayer & Gaschke, 1988) (Appendix A). In addition, The Rosenberg Self-Esteem Scale was used to measure the self-esteem scores of the participants (Rosenberg, 1965) (Appendix B). Furthermore, the study included the Self-Talk Scale to measure different types of self-talk engagements (Self-Critical, Self-Managing, Self-Reinforcing, and Social Assessment) that the participants experience (Brinthaupt et al., 2009) (Appendix C). For the purpose of this study, two sub-scale variables were derived from scores on the Self-Talk Scale. The purpose of this was to accurately assess the primary research questions and hypotheses. Scores from Self-Management and Self-Reinforcement were calculated to create a positive self-talk variable, and scores from Social Assessment and Self-Criticism were calculated to form a negative self-talk variable. Finally, to assess student's educational self-efficacy, an educational self-efficacy scale was used (Appendix D) (Viola, 2021).

Brief Mood Introspection Scale is a well-established, open-sourced scale. It contains 16 mood-adjectives that each participant responds to according to how they are feeling. The answers are scored on a 4-point Likert scale (1 = definitely do not feel, 2 = do not feel, 3 = slightly feel, and 4 = definitely feel) that measures how pleasant-unpleasant their mood is. There are eight pleasant and eight unpleasant adjectives included in the scale. The unpleasant adjectives are reverse scored, meaning 1 = definitely feel, 2 = slightly feel, 3 = do not feel, and 4 = definitely do not feel. After the participants submitted their answers, the scores from the pleasant and unpleasant adjectives were added together. A low score suggests the participant was experiencing an unpleasant mood, whereas a higher score suggests that they were experiencing a more pleasant mood. The Cronbach's alpha reliabilities for this scale range from 0.76 to 0.83 (Mayer & Gaschke, 1988), however, in this study, the Cronbach's alpha statistic was 0.79 which is considered satisfactory.

The Rosenberg Self-Esteem Scale is prevalent in the field of psychology. It consists of 10 items and measures self-esteem scores on a 4-point Likert scale (1 = strongly agree, 2 = agree, 3 = disagree, and 4 = strongly disagree) with a maximum score of 40. The scale items 2, 5, 6, 8, and 9 are reverse scored, meaning 1 = strongly disagree, 2 = disagree, 3 = agree, and 4 = strongly agree. It is considered a highly reliable scale with reproducibility scores as high as 0.90 and has contained internal consistencies of 0.77 (Sinclair et al., 2010). It was tested and retested at a 2-week interval by Simmons and colleagues, and the results reinforce the scale's reliability as it scored 0.85 (Simmons et al., 1973). During this study, it produced a score of 0.81 for Cronbach's alpha statistic, again reinforcing the scale's reliability. The lower the participant's score, the lower their self-esteem levels are, and any score below 15 can indicate a problematic self-esteem level.

Furthermore, the Self-Talk Scale was used to measure the participant's different types of self-talk engagements. This scale includes sixteen questions evenly divided into four questions to measure four distinct types of self-talk on a 5-point Likert scale (1 = never, 2 = seldom, 3 = sometimes, 4 = often, and 5 = very often). These types include Self-Management, Self-Reinforcement, Social Assessment, and Self-Criticism. Higher scores indicate that the participant frequently engages in self-talk, while lower scores indicate infrequent engagement. The reliability of this scale is also good, producing scores ranging from .79-.89 for Cronbach's alpha (Brinthaupt et al., 2009), however, in this study it scored a total of 0.77. In addition, the factor covariances all produced significant results ($p = <.001$). The individual scale items all have significant correlation scores ($p = <.001$), alongside the indication of good stability (Brinthaupt et al., 2009).

Finally, the Educational Self-Efficacy Scale was derived from the Harvard-Panorama Student Perception Survey, and it adhered to best practices for structuring a questionnaire according to Imperial College London (Viola, 2021). It was used to measure how well

students felt they could achieve academic outcomes. This is a five-item scale, and each item is scored on a 5-point Likert scale (1 = Not at all confident, 2 = Slightly confident, 3 = Somewhat confident, 4 = Quite confident, and 5 = Extremely confident). The reliability of this scale was satisfactory, producing a Cronbach's alpha statistic of 0.87 for this study. The scores for each question were calculated and higher results indicate higher levels of educational self-efficacy among the participants.

Design

A link that redirected participants to a Google Forms questionnaire was uploaded to social media platforms. The questionnaire consisted of four separate scales and the participants answered the questions accordingly. The questionnaire focused on measuring the impact of self-talk on college students' self-esteem, educational self-efficacy, and mood. The current research used a quantitative approach, and the data was derived from the participants' answers to the questions presented in the questionnaire. This study also used a cross-sectional correlational research design to collect data and to statistically assess the relationship between variables without any external variables influencing the results. The first and second hypotheses were assessed using a within-groups design, while a between groups design was used to assess the third.

All statistical analyses were carried out using SPSS, version 26. To assess the hypotheses, several statistical techniques were used, including multiple correlations, standard multiple regressions, and a one-way ANOVA. Each of the correlations included one independent variable (Self-Talk) and three separate dependent variables (Self-Esteem, Educational Self-Efficacy, and Mood). In addition, each of the three regressions consisted of two independent variables (Positive Self-Talk, Negative Self-Talk) and each consisted of one dependent variable (Self-Esteem, Educational Self-Efficacy, Mood), and finally, the one-way

ANOVA included one categorical independent variable (Gender) and one dependent variable (Self-Esteem).

Procedure

The current study was given ethical approval by the National College of Ireland Ethics Committee on 19th November 2021, in accordance with the guidelines of The Psychological Society of Ireland's Code of Professional Ethics (Psychological Society of Ireland, 2010) and the National College of Ireland's Ethical Guidelines and Procedures for Research involving Human Participants (National College of Ireland, 2018). The recruitment poster was uploaded to the researcher's Twitter and Facebook social media platforms alongside the link to the questionnaire that was hosted on Google Forms. After clicking the link, the participants were brought to the landing page of the questionnaire. This page included all relevant information regarding the study, including the purpose, what is involved in the participation of the study, and individuals right to withdraw from the study at any point prior to submission (Appendix E). The information sheet also highlighted that participants will not be offered any breaks during the procedure. Participants were made aware of their right to withdraw from the study at any time under the Freedom and Information Act. Participants were informed that once the survey is submitted, their information will not be retrievable as there will be no possibility of identifying their results as the survey was completed anonymously. They were instructed to carefully read through the information on this page and then decide if they wished to participate in the study or not and were also informed that the questionnaire takes approximately fifteen minutes to complete. If they wanted to participate, they first needed to select 'yes' on the consent form on the following page (Appendix F). They were only allowed to proceed to the next page by selecting this answer. The following page measured demographic variables, including age and gender

(Male, Female, Transgender, Gender Expansive, or Other). Once the demographic variables were entered, the participants were presented with the first questionnaire (BMIS).

The study included a questionnaire consisting of questions relating to personal thoughts (Self-Talk Scale), how individuals are feeling (Brief Mood Introspection Scale), how individuals feel about themselves (The Rosenberg Self-Esteem Scale), and individuals' beliefs towards achieving academic outcomes (Educational Self-Efficacy Scale). The following four pages included questions from the four scales that were used to gather the data for the research. After completing all questions, the participants were brought to the survey submission page, that reminds the participants that once they submit their answers their data will not be retrievable, so if they wanted to withdraw from the study, they must do so now by closing their browser. It also included a submit button for the participants that wanted to proceed. Clicking this button submitted all their answers, and they were automatically sent to a dataset on Google Sheets which was password protected by the researcher and stored on an USB drive that was contained behind two locked doors in a locked filing cabinet that only the researcher had access to, implementing adequate data protection. Finally, the participants were presented with the debriefing form (Appendix G), which outlines how their data is protected, stored, and handled and concludes with thanking them for their time, effort, and participation in the study. Support measures were available on the debriefing form if participants required them after taking part in the study.

Chapter 3: Results

Descriptive Statistics

Table 1 presents the results obtained from the descriptive statistics for demographic variable Gender. A total number of 112 participants took part in this study ($N = 112$). From that population, 79.5% of them were female, 18.8% were male, and 1.8% were transgender.

Table 1

Frequencies for the categorical variable Gender, N = 112

Variable	Frequency	Valid %
Gender		
Female	89	79.5
Male	21	18.8
Transgender	2	1.8

Descriptive statistics for all continuous variables were performed, which include Age, Total Mood, Total Self-Talk, Total Positive Self-Talk, Total Negative Self-Talk, Total Educational Self-Efficacy, and Total Self-Esteem scores. Means (M), Standard Deviations (SD), Range, and normality tests were obtained for each continuous variable and can be seen from the data in Table 2. The mean age of the participants was 23.30 (SD = 5.80), with ages ranging from 18 to 49. A non-significant result ($p > .05$) for the Shapiro-Wilk statistic was found for all continuous variables which indicates that the data was normally distributed, whereas the histograms indicate that the data for all continuous variables are negatively skewed. SPSS uses a multiplier of 1.5 interquartile range rule for identifying outliers at the 25th percentile and after inspecting the data, it highlighted 5 outliers based on that calculation. However, according to (Hoaglin & Iglewicz, 1987) using 1.5 as a multiplier is only accurate

50% of the time, so after inspecting the data, it was clear that the participants responses were appropriate regarding the scoring of the measurement scales. Therefore, these scores were included in the final analysis of the study.

Table 2

Descriptive statistics for all continuous variables, N = 112

Variable	*M* [95% CI]	*SD*	Range
Age	23.30 [22.22, 24.39]	5.80	18 – 49
Total_Mood_Scores	43.19 [41.84, 44.54]	7.20	26 – 60
Total_SelfTalk_Scores	58.32 [56.85, 59.80]	7.87	35 – 74
Total_PosSelfTalk	28.96 [28.18, 29.74]	4.16	15 – 40
Total_NegSelfTalk	26.17 [25.17, 27.17]	5.35	14 – 35
Total_EducSelfEfficacy_Scores	15.36 [14.49, 16.22]	4.61	5 – 25
Total_SelfEsteem_Scores	25.92 [24.79, 27.05]	6.01	10 – 40

Inferential Statistics

The first set of analyses examined the relationship between the participant's self-talk engagement (as measured by the self-talk scale), self-esteem (as measured by the Rosenberg's self-esteem scale), educational self-efficacy (as measured by the educational self-efficacy scale), and mood (as measured by the brief mood introspection scale) using correlational analysis. As mentioned previously, the self-talk scale includes positive and negative self-talk items. Two adjustment measures (positive self-talk and negative self-talk) were derived from the participants answers to these scale items. Preliminary analyses were performed on the adjustment measures to ensure no violation of the assumptions of normality; the *p*-values of the Shapiro-Wilk statistic were all greater than .05 and the histograms of each variable was examined which indicated that the data for each variable was

normally distributed. Therefore, the Pearson product-moment correlation statistic was used. There was a statistically significant, small, positive correlation between the variables positive self-talk, self-esteem, and mood, and a statistically significant, medium, positive correlation between the variables positive self-talk and educational self-efficacy. Whereas a statistically significant, small, negative correlation was evident between the variable negative self-talk and each control measure. Table 3 and 4 portrays the correlation statistics between the adjustment measures and control measures. The correlation results revealed that high levels of positive self-talk engagement are associated with higher levels of self-esteem, educational self-efficacy, and mood, and high levels of negative self-talk engagement are associated with lower levels of self-esteem, educational self-efficacy, and mood.

Table 3

Correlations between positive self-talk and control measures

Variable	1.	2.	3.	4.
1. Total_PosSelfTalk_Scores	1			
3. Total_SelfEsteem_Scores	.22*	1		
4. Total_EducSelfEfficacy_Score	.41**		1	
5. Total_Mood_Scores	.25**			1

Note: Statistical significance: *p < .05; **p < .01; ***p < .001

Table 4

Correlations between negative self-talk and control measures

Variable	1.	2.	3.	4.
1. Total_NegSelfTalk_Scores	1			
3. Total_SelfEsteem_Scores	-.29**	1		
4. Total_EducSelfEfficacy_Score	-.26**		1	
5. Total_Mood_Scores	-.28**			1

Note: Statistical significance: *p < .05; **p < .01; ***p < .001

Turning now to the regression analysis, standard linear regression was used to investigate how well scores on a measure of self-talk can predict scores on a measure of self-esteem, educational self-efficacy, and mood. Preliminary analyses were conducted to ensure no violation of the assumptions of normality, linearity, and homoscedasticity. Correlations between the predictor variables and the criterion variables included in the models were examined. Positive self-talk and negative self-talk were both statistically correlated with each of the criterion variables (See Table 3 & 4). The correlation between the predictor variables (p = .15) is less than .7, the tolerance values are all greater than .10 and the VIF values are all less than 10. These results state there was no violation of multicollinearity. The assumption of outliers, normality, linearity, homoscedasticity, and independence of residuals was examined through an inspection of the Normal Probability Plot (P-P) and there were no violations; therefore, the data was suitable to be assessed through standard linear regression analysis. Three independent regression analysis were performed to adequately assess the second hypothesis and the results of these are outlined below.

Self-talk and Self-esteem

No *priori* hypotheses were assigned to determine the order each predictor variable should be entered into the model, so a direct approach was used for the analysis. The predictor variables in the model explained 15.7% of the variance in self-esteem, (F (2, 109) = 10.14, p <.001). Each predictor variables in the model were statistically significant (p <.001), with negative self-talk recording the highest beta value (*beta* = -.33, p <.001), indicating that this variable makes the strongest unique contribution to explaining the dependent variable, when the variance explained by all other variables in the model is controlled for. The beta value for positive self-talk was slightly lower (*beta* = .27, p <.001), indicating that it made less of a unique contribution. The part correlation coefficient statistic for negative self-talk (-

.33) and positive self-talk (.27) indicates that they each uniquely explain 10.9% and 7.3% of the variance in total self-esteem scores respectively. The results obtained from this regression analysis are set out in Table 5.

Table 5

Standard multiple regression table for Self-esteem, Positive Self-Talk, and Negative Self-Talk.

Variable	R^2	*B*	*SE*	β	*t*	*p*
(Constant)	.16***					
Total_PosSelfTalk_Scores		.39	.13	.27	3.06	.003
Total_NegSelfTalk_Scores		-.37	.10	-.33	-3.72	<.001

Note: * = p <.05, ** = p <.01, *** p <.001

Self-talk and Educational Self-efficacy

No *priori* hypotheses were assigned to determine the order each predictor variable should be entered into the model, so a direct approach was used for the analysis. The predictor variables in the model explained 27% of the variance in self-esteem, (F (2, 109) = 20.36, p <.001). Each predictor variables in the model were statistically significant (p <.001), with positive self-talk recording the highest beta value (*beta* = .45, p <.001), indicating that this variable makes the strongest unique contribution to explaining the dependent variable, when the variance explained by all other variables in the model is controlled for. The beta value for negative self-talk was slightly lower (*beta* = -.33, p <.001), indicating that it made less of a unique contribution. The part correlation coefficient statistic for positive self-talk (.45) and negative self-talk (-.33) indicates that they each uniquely explain 20.3% and 10.9% of the variance in Total self-esteem scores respectively. Please refer to Table 6 below to view the results for each predictor variable.

Table 6

Standard multiple regression table for Educational Self-efficacy, Positive Self-Talk, and Negative Self-Talk.

Variable	R^2	*B*	*SE*	β	*t*	*p*
(Constant)	.27***					
Total_PosSelfTalk_Scores		.50	.09	.45	5.50	<.001
Total_NegSelfTalk_Scores		-.29	.07	-.33	-4.00	<.001

Note: * = p <.05, ** = p <.01, *** p <.001

Self-talk and Mood

No *priori* hypotheses were assigned to determine the order each predictor variable should be entered into the model, so a direct approach was used for the analysis. The predictor variables in the model explained 16% of the variance in mood, (F (2, 109) = 10.29, p <.001). Each predictor variables in the model were statistically significant (p = .001), with negative self-talk recording the highest beta value (*beta* = -.32, p = .001), indicating that this variable makes the strongest unique contribution to explaining the dependent variable, when the variance explained by all other variables in the model is controlled for. The beta value for positive self-talk was slightly lower (*beta* = .29, p = .001), indicating that it made less of a unique contribution. The part correlation coefficient statistic for negative self-talk (-.32) and positive self-talk (.29) indicates that they each uniquely explain 10.24% and 8.41% of the variance in Total self-esteem scores respectively. The results of the regression analysis are presented in Table 7 below.

Table 7

Standard multiple regression table for Mood, Positive Self-Talk, and Negative Self-Talk.

Variable	R^2	*B*	*SE*	β	*t*	*p*
(Constant)	.16***					
Total_PosSelfTalk_Scores		.50	.15	.29	3.27	.001

Total_NegSelfTalk_Scores	-.49	.12	-.32	-3.58	.001

Note: * = p <.05, ** = p <.01, *** p <.001

In order to assess whether self-esteem levels differed between gender types, a one-way between-groups analysis of variance was used. Descriptive statistics for categorical and continuous variables can be found in Table 1 and 2 respectively. Participants were divided into three categories according to their gender type (Category 1: Females; Category 2: Males; and Category 3: Transgender). The Levene's test for homogeneity of variances statistic (p = .571) indicates that there was no violation of the assumption of normality, while the scatterplots and normal probability plots indicate no violation of linearity and homogeneity. The one-way ANOVA revealed that there was no statistically significant difference in levels of self-esteem between the three gender types, F (2, 109) = .08, p = .928. The effect size indicated a very small difference in self-esteem scores (eta squared = .001) which indicates that 0.1% of variance in self-esteem is due to gender type.

Discussion

The present study was designed to determine the impact that self-talk can have on undergraduate students' self-esteem, educational self-efficacy, and mood. While there are many factors that can influence levels of self-esteem, educational self-efficacy, and mood. The study also investigated whether levels of self-esteem differed between the three gender types that were selected in the study (female, male, and transgender).

The first research question in this study sought to determine whether there was a relationship between self-talk and the students' self-esteem, educational self-efficacy, and mood. It was hypothesised that there would be a relationship, and this was assessed through an accumulation of correlational analysis. When looking at the self-talk variable as a whole, the relationship it had with the three dependent variables was non-statistically significant and was negatively correlated. However, the self-talk variable was made up of both positive and negative self-talk, so two sub-variables were derived to provide more accurate findings in terms of the strength and direction of the relationship between the variables. Results show there was a statistically significant, small, positive correlation between positive self-talk, self-esteem, and mood, and a statistically significant, medium, positive correlation with educational self-efficacy. Whereas a statistically significant, small, negative correlation was evident between negative self-talk and each of the dependent variables. These results show support for the first hypothesis.

Regarding the correlation between self-talk and self-esteem, this finding is consistent with that of Brinthaupt et al. (2012) who also found a relationship between the two variables. They suggest that higher engagement in negative self-talk was associated with frequent negative self-talk statements and with lower levels of self-esteem. In contrast, the results indicate that higher engagement in positive self-talk was associated with positive self-talk statements, which may contribute to increasing positive thoughts of ourselves, therefore, has

the capabilities of increasing self-esteem levels. The relationship between positive self-talk and higher levels of self-esteem is also reported in several other studies (Burnett, 1994; Kent & Gibbons, 1987; Lamke et al., 1988), however, in contrast to these findings, other studies found that engaging in negative self-talk statements improved self-esteem levels of the participants involved (Kendall et al., 1989; Philpot et al., 1995). The participants in these contrasting studies were primary school students and adolescents, so it is interesting to note that the results from the current study do not support these findings. These results may indicate how we change the use of our self-talk engagements as we progress through life, leaving room for potential future studies to use a longitudinal design and examine this possible change from childhood to adulthood. Self-esteem levels may also have been negatively influenced by the timeline of the study, which saw participants completing the questionnaire leading up to the college exams period. This is an area for concern, as the exam period is known to be a stressful time for students (Beiter et al., 2015; Conley et al., 2014; Hurst et al., 2013; McLafferty et al., 2017), however, this study did not control for this factor.

As mentioned throughout the study, there is limited research that focuses on the relationship between self-talk and educational self-efficacy. However, the results from the current study indicate that engaging in positive self-talk increases the student's educational self-efficacy. Again, the timeline of the study may have positively influenced these scores as the participants may have used increased levels of self-reinforcement self-talk as a motivational technique. This may have enhanced their beliefs that they can perform well in their exams. These findings align with previous studies (Wolters, 2003; Wolters & Benzon, 2013). Keeping in mind the limited research surrounding self-talk and educational self-efficacy in students gives adequate rationale for future studies to be conducted to further understand the relationship between the two variables.

In regard to the relationship between both self-talk engagements and mood, comparison of the findings coincides with statements found in previous literature (Payne & Manning, 1998), where they indicate that frequent engagement in negative self-talk can result in feelings of depression, anxiety, and sadness, while frequent engagement in positive self-talk can lead to feelings of positivity and happiness (Payne & Manning, 1998). These findings highlight that our mood can be impacted by engaging in both positive and negative self-talk. Self-talk has been proven to enhance our performance in sports activities (Hardy et al., 2001), however, there is a lack of research surrounding the advantages and benefits it has on mental health, indicating that there is an opportunity for future research in this area. Academic faculty would benefit greatly from this research, as the mood and well-being of their students is of the utmost importance, and it would allow them to explore other possible ways of improving their overall mental health. Similar to findings from previous research (Oliver et al., 2010), the results suggest that engagement in positive self-talk for undergraduate students may be used as an appropriate intervention technique to develop coping skills in academic settings. In future investigations, it might be possible to include a self-talk intervention, where the participants will record their mood before and after they engage in positive self-talk over a one-month period and compare the two results.

A strong relationship between self-talk and loneliness has been reported in previous literature. With regard to chronic loneliness, it is a serious condition that can have detrimental implications for the individual who is enduring it (Harris et al., 2013; Leary, 1990). These implications include poor adjustment (Jobe-Shields et al., 2011; Jones et al., 2011), low self-esteem (Qualter & Munn, 2002), consequences to mental and physical health (Cacioppo & Hawkley, 2003; Gardner et al., 2005; Harris et al., 2013; Qualter, Brown, et al., 2013; Qualter, Rotenberg, et al., 2013), and damage to mental skills such as memory, self-control, and flexible thinking (Cacioppo et al., 2000). Prior research conducted by Reichl and

colleagues suggest that self-talk can be used as a temporary substitute for insufficient social interaction (Reichl et al., 2013), nevertheless, if the individual does not receive adequate social interaction, the self-talk engagements may reinforce the feeling of loneliness. These findings suggest that we can use self-talk to temporarily enhance our moods, but further research should be undertaken to investigate how we can use it to improve our overall mood in the long term.

With respect to the second research question, it was hypothesised that scores on a measure of self-talk will significantly predict scores on a measure of self-esteem, educational self-efficacy, and mood. The findings of each regression model supported this hypothesis. It is interesting to note that in all three regression analyses, both positive and negative self-talk were statistically correlated with each of the criterion variables. The first model highlights that self-talk explains 15.7% of the variance in self-esteem, with an unanticipated finding that negative self-talk recorded the highest beta value, indicating that it makes the strongest unique contribution to explaining self-esteem. As mentioned previously, exam period is a stressful time for students (Beiter et al., 2015; Conley et al., 2014; Hurst et al., 2013; McLafferty et al., 2017), indicating that the participants may have engaged more in negative self-talk. The most interesting finding was present in the second model, where self-talk explained 27% of the variance in educational self-efficacy, with positive self-talk recording the highest beta value, indicating that it made the strongest unique contribution to explaining educational self-efficacy. This may indicate that positive self-talk can be used to increase students' beliefs that they can achieve their academic goals, however, with the limited research available there is a need for future studies to support these findings. On the question of whether self-talk could predict mood scores, the third model highlights that self-talk explained 16% of the variance in mood, with negative self-talk recording the highest beta value, indicating that it made the strongest unique contribution to explaining mood. These

results support existing studies, which suggest that mood disorders, such as depression, can be significantly predicted through engagement in negative self-talk statements (Beck et al., 1979, 2005).

The third question in this research looked to investigate whether there was a difference in self-esteem levels between the different genders, and it was hypothesised that there will be a significant difference. The result of this analysis did not show any significant difference in self-esteem levels between the three different genders, meaning the hypothesis was not supported. Although results from studies that assess differences between gender types vary, a significant difference was anticipated which would align with previous studies that found higher self-esteem in males (Allgood-Merten et al., 1990; Feather, 1991; Fertman & Chubb, 1992) and others that found higher self-esteem in females (Connell et al., 1994; Ma & Leung, 1991), indicating a strong chance that a difference would be found in the current study. It is somewhat surprising that no difference was noted in this condition, which may have been caused, in part, by the disparity in gender participants. There were far more females (n = 89) than males and transgender (n = 21; n = 2) respectively. Perhaps if there were more males and transgender participants, there would have been a significant difference in scores in self-esteem between gender types. Another possible explanation for this is that there were high-scoring male outliers present in the study, however, it was unclear whether these outliers were caused by gender type or an external variable. As a result, these scores were not excluded as the data was proportionate to the population and normally distributed.

Overall, the findings from the first and second hypotheses contribute to existing literature, indicating that both forms of self-talk have different correlations with students' self-esteem, educational self-efficacy, and mood. Building on from that, self-talk occurs in our everyday life, therefore, examining the different types of self-talk is important as it can present a better understanding of how students can utilise it to enhance their overall well-

being and their self-efficacy beliefs in an academic setting. Understanding the impact that positive and negative self-talk has on self-esteem is important from a health and well-being viewpoint. Engaging in frequent negative self-talk may have a detrimental effect on self-esteem, which can subsequently develop internal and external problems. Self-esteem is known to be a factor in developing several mental disorders (Mann et al., 2004). Although there is a combination of features that contribute to mental disorders, lower levels of self-esteem have a correlation with the development of internal disorders including depression (Orth et al., 2008), and anxiety (Beck et al., 2001). Furthermore, it has a correlation with external issues including substance abuse and violence (Mann et al., 2004).

Strengths and limitations

A strength of the current study is that it attempts to contribute to the limited research surrounding self-talk and educational self-efficacy in a novel way. To the researcher's knowledge, existing studies failed to examine the direct link between self-talk and educational self-efficacy. The findings indicate a statistically significant association between positive self-talk engagement and educational self-efficacy, suggesting that it can be used to enhance students' beliefs that they can achieve their academic goals.

Firstly, one limitation of this study is that the self-talk scale (STS), as well as the other scales, is used as a self-report measure. The current study has not examined the correlation between self-reported and behavioural occurrences of self-talk. For instance, in what way does a real-life assessment of self-talk (Duncan & Cheyne, 1999) compare with results from the STS? Addressing this question or similar questions can provide additional insight on the reliability of the STS. Building on from that, another possible limitation with the STS is that it measures general occurrences of self-talk, whereas it may be more beneficial to use as a situation-specific measure (Brinthaupt et al., 2009). When taking part in the study, it is possible that the participants were remembering their most notable occurrences of self-talk,

which may result in inaccurate frequencies of self-talk engagement. Finally, the current study included a sample of participants enrolled in an undergraduate course. Further research should be conducted to interpret whether these findings can be generalised to the general population.

Secondly, since the study was limited to a cross-sectional design, it was not possible to interpret causality from the results. This is not seen as a crucial limitation, having said that, future longitudinal research may interpret how we utilise self-talk over the transition from childhood to adulthood, and how it can affect our self-esteem, educational self-efficacy, and mood. These findings could better infer causality.

Thirdly, one source of weakness in this study which could have affected the measurements of the participants' mood was the time period of the recruitment process. This occurred leading up to and during the Christmas period, and according to previous literature, approximately half of the college students that participated in the study (n = 43) said they experienced higher levels of stress during the festive period (Kasser & Sheldon, 2002). While the prevalence of these findings is disputed (Eghigian, 2016; Hairon, 2008), the added stress may have negatively impacted mood scores. More notably, the recruitment process coincided with the exam period of most universities which, again, is a stressful time for students (Beiter et al., 2015; Conley et al., 2014; Hurst et al., 2013; McLafferty et al., 2017). A correlation between high levels of stress and low self-esteem is found in a study conducted by Hudd and colleagues (2010), indicating that self-esteem scores may have been affected due to the time period of the study's recruitment stage.

Finally, the small sample size of males and transgenders compared to females may have caused the non-statistically significant difference produced by the ANOVA. The current sample had 89 females, 21 males, and 2 transgender participants. As highlighted in previous studies, male participants recorded higher levels of self-esteem when compared to females,

suggesting that if the study included more males, there may have been a statistically significant difference between the gender types.

Implications and future research

Notwithstanding these limitations, the current study has important theoretical implications, which outline the impact of self-talk on our self-esteem, educational self-efficacy, and mood. The results highlight how engaging in positive self-talk significantly enhances our self-esteem, educational self-efficacy, and mood, whereas engaging in negative self-talk has the opposite effect. Therefore, it is crucial to continuously investigate this topic as low self-esteem and mood is associated with adverse health outcomes (Battle, 1978; Beck et al., 1979, 2005; Sowislo & Orth, 2013). Considering the limited research surrounding self-talk and educational self-efficacy, the current study further supports and strengthens existing findings and indicates future research's importance in interpreting the relationship between the two. Future investigations should focus on developing material to encourage individuals to reduce engagements in self-critical self-talk, considering the negative correlation it has with mental health outcomes.

Additionally, an increase in longitudinal research is vital to adequately measure our engagements in self-talk to provide accurate results in how it affects individuals from childhood to adulthood. This may result in the creation of preventative measures or effective interventions to reduce the adverse outcomes associated with self-talk. Finally, a longitudinal study of self-talk in college students should be conducted to assess the long-term effects of self-talk. The results of this may unfold how students continuously apply self-talk as they progress through different stages of education and reveal the substantial impact it can have on the educational system. This will identify the advantages of self-talk on students behaviourally, emotionally, academically, and socially over a prolonged period.

Conclusion

This thesis has provided a deeper insight into the current understanding of self-talk and how it can impact self-esteem, educational self-efficacy, and mood. Regarding positive self-talk, the results support previous literature, which suggests that engaging in positive self-talk enhance levels of self-esteem. Prior to this study, it was difficult to predict how self-talk impacted educational self-efficacy due to the limited research. This new understanding should help improve predictions of the impact of positive self-talk on students' beliefs that they can achieve their academic goals. In regard to negative self-talk, the results are consistent with existing research that has found that it is adversely correlated with self-esteem and mood. Self-talk is not only a valuable essential for students to learn, but it also helps train students to become more efficient problem solvers (Hannell, 2004; Neck & Manz, 1992; Stanulis & Manning, 2002; Tate, 2001).

References

Allgood-Merten, B., Lewinsohn, P. M., & Hops, H. (1990). Sex differences and adolescent depression. *Journal of Abnormal Psychology*, *99*(1), 55–63. https://doi.org/10.1037/0021-843X.99.1.55

Anderssen, E. R. (2013). Why are today's teenagers feeling so anxious. *The Globe and Mail*.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295X.84.2.191

Bandura, A. (1986). Prentice-Hall series in social learning theory. Social foundations of thought and action: A social cognitive theory. *Englewood Cliffs*.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In F. Pajares & T. Urdan (Eds.), *Adolescence and education, vol 4: Self-efficacy beliefs of adolescents* (1st ed., Vol. 5, pp. 307–337). Information Age Publishing.

Bandura, A., Freeman, W. H., & Lightsey, R. (1999). Self-efficacy: The exercise of control. *Journal of Cognitive Psychotherapy*, *13*(2), 158–166. https://doi.org/10.1891/0889-8391.13.2.158

Battle, J. (1978). Relationship between self-esteem and depression. *Psychological Reports*, *42*(3), 745–746. https://doi.org/10.2466/pr0.1978.42.3.745

Beck, A. T. (1976). *Cognitive Therapy and the Emotional Disorders*. New American Library.

Beck, A. T., Brown, G. K., Steer, R. A., Kuyken, W., & Grisham, J. (2001). Psychometric properties of the Beck Self-Esteem Scales. *Behaviour Research and Therapy*, *39*(1), 115–124. https://doi.org/10.1016/S0005-7967(00)00028-0

Beck, A. T., Emery, G., & Greenberg, R. L. (2005). *Anxiety disorders and phobias: A cognitive perspective*. Basic Books.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. Guilford Press.

Beiter, R., Nash, R., McCrady, M., Rhoades, D., Linscomb, M., Clarahan, M., & Sammut, S. (2015). The prevalence and correlates of depression, anxiety, and stress in a sample of college students. *Journal of Affective Disorders*, *173*, 90–96. https://doi.org/10.1016/j.jad.2014.10.054

Benabou, R., & Tirole, J. (2002). Self-confidence and personal motivation. *The Quarterly Journal of Economics*, *117*(3), 871–915. https://doi.org/10.1162/003355302760193913

Brinthaupt, T. M., Hein, M. B., & Kramer, T. E. (2009). The Self-Talk Scale: Development, factor analysis, and validation. *Journal of Personality Assessment*, *91*(1), 82–92. https://doi.org/10.1080/00223890802484498

Broomhead, P., Skidmore, J. B., Eggett, D. L., & Mills, M. M. (2012). The effects of a positive mindset trigger word pre-performance routine on the expressive performance of junior high age singers. *Journal of Research in Music Education*, *60*(1), 62–80. https://doi.org/10.1177/0022429411435363

Brown, T. C. (2003). The effect of verbal self-guidance training on collective efficacy and team performance. *Personnel Psychology*, *56*(4), 935–964. https://doi.org/10.1111/j.1744-6570.2003.tb00245.x

Burnett, P. C. (1994). Self-talk in upper elementary school children: Its relationship with irrational beliefs, self-esteem, and depression. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, *12*(3), 181–188. https://doi.org/10.1007/BF02354595

Cacioppo, J. T., Burleson, M. H., Poehlmann, K. M., Malarkey, W. B., Kiecolt-Glaser, J. K., Berntson, G. G., Uchino, B. N., & Glaser, R. (2000). Autonomic and neuroendocrine

responses to mild psychological stressors: Effects of chronic stress on older women. *Annals of Behavioral Medicine*, *22*(2), 140–148. https://doi.org/10.1007/BF02895778

Cacioppo, J. T., & Hawkley, L. C. (2003). Social isolation and health, with an emphasis on underlying mechanisms. *Persepctives in Biology and Medicine*, *46*, 39–52.

Cheavens, J. S., Feldman, D. B., Gum, A., Michael, S. T., & Snyder, C. R. (2006). Hope therapy in a community sample: A pilot investigation. *Social Indicators Research*, *77*(1), 61–78. https://doi.org/10.1007/s11205-005-5553-0

Clarke, D. A., Beck, A. T., & Alford, B. A. (1999). *Scientific foundations of cognitive theory and therapy of depression*. John Wiley & Sons Inc. https://psycnet.apa.org/record/1999-02440-000

Conley, C. S., Kirsch, A. C., Dickson, D. A., & Bryant, F. B. (2014). Negotiating the transition to college: Developmental trajectories and gender differences in psychological functioning, cognitive-affective strategies, and social well-being. *Emerging Adulthood*, *2*(3), 195–210. https://doi.org/10.1177/2167696814521808

Connell, J. P., Spencer, M. B., & Aber, J. L. (1994). Educational risk and resilience in African-American youth: Context, self, action, and outcomes in school. *Child Development*, *65*(2), 493. https://doi.org/10.2307/1131398

Cooke, R., Bewick, B. M., Barkham, M., Bradley, M., & Audin, K. (2006). Measuring, monitoring and managing the psychological well-being of first year university students. *British Journal of Guidance & Counselling*, *34*(4), 505–517. https://doi.org/10.1080/03069880600942624

Creemers, D. H. M., Scholte, R. H. J., Engels, R. C. M. E., Prinstein, M. J., & Wiers, R. W. (2012). Implicit and explicit self-esteem as concurrent predictors of suicidal ideation,

depressive symptoms, and loneliness. *Journal of Behavior Therapy and Experimental Psychiatry*, *43*(1), 638–646. https://doi.org/10.1016/j.jbtep.2011.09.006

Curry, S. L., & Russ, S. W. (1985). Identifying coping strategies in children. *Journal of Clinical Child Psychology*, *14*(1), 61–69. https://doi.org/10.1207/s15374424jccp1401_10

DeCaro, M. S., Rotar, K. E., Kendra, M. S., & Beilock, S. L. (2010). Diagnosing and alleviating the impact of performance pressure on mathematical problem solving. *Quarterly Journal of Experimental Psychology*, *63*(8), 1619–1630. https://doi.org/10.1080/17470210903474286

Dieserud, G., Røysamb, E., Ekeberg, Ø., & Kraft, P. (2001). Toward an integrative model of suicide attempt: A cognitive psychological approach. *Suicide and Life-Threatening Behavior*, *31*(2), 153–168. https://doi.org/10.1521/suli.31.2.153.21511

Dixon, S. K., & Kurpius, S. E. R. (2008). Depression and college stress among university undergraduates: Do mattering and self-esteem make a difference? *Journal of College Student Development*, *49*(5), 412–424. https://doi.org/10.1353/csd.0.0024

Duncan, R. M., & Cheyne, J. A. (1999). Incidence and functions of self-reported private speech in young adults: A self-verbalization questionnaire. *Canadian Journal of Behavioural Science / Revue Canadienne Des Sciences Du Comportement*, *31*(2), 133–136. https://doi.org/10.1037/h0087081

Dyson, R., & Renk, K. (2006). Freshmen adaptation to university life: Depressive symptoms, stress, and coping. *Journal of Clinical Psychology*, *62*(10), 1231–1244. https://doi.org/10.1002/jclp.20295

Eghigian, G. (2016). The holiday syndrome: Who exactly came up with the idea of those Christmas blues? *Psychiatric Times*, *33*(12).

Feather, N. T. (1991). Human values, global self-esteem, and belief in a just world. *Journal of Personality*, *59*(1), 83–107. https://doi.org/10.1111/j.1467-6494.1991.tb00769.x

Fertman, C. I., & Chubb, N. H. (1992). The effects of a psychoeducational program on adolescents' activity involvement, self-esteem, and locus of control. *Adolescence*, *27*(107), 517–526.

Gardner, W. L., Pickett, C. L., & Knowles, M. (2005). Social snacking and shielding: Using social symbols, selves, and surrogates in the service of belonging needs. In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), *The social outcast: Ostracism, social exclusion, rejection, and bullying* (pp. 227–241). Psychology Press.

Geurts, B. (2018). Making sense of self talk. *Review of Philosophy and Psychology*, *9*(2), 271–285. https://doi.org/10.1007/s13164-017-0375-y

Hackfort, D., & Schwenkmezger, P. (1993). Anxiety. In R. N. Singer, M. Murphey, & L. K. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 328–364). Macmillan.

Hairon, N. (2008). How Christmas festivities and pressures can damage health and well-being. *Nursing Times*, *104*(50), 33–34.

Hannell, G. (2004). *Promoting positive thinking: Building children's self esteem, confidence, and optimism*. David Fulton Publishers.

Hardy, J. (2006). Speaking clearly: A critical review of the self-talk literature. *Psychology of Sport and Exercise*, *7*(1), 81–97. https://doi.org/10.1016/j.psychsport.2005.04.002

Hardy, J., Gammage, K., & Hall, C. (2001). A descriptive study of athlete self-talk. *The Sport Psychologist*, *15*(3), 306–318.

Harris, R. A., Qualter, P., & Robinson, S. J. (2013). Loneliness trajectories from middle childhood to pre-adolescence: Impact on perceived health and sleep disturbance. *Journal of Adolescence*, *36*(6), 1295–1304. https://doi.org/10.1016/j.adolescence.2012.12.009

Hatzigeorgiadis, A., Theodorakis, Y., & Zourbanos, N. (2004). Self-talk in the swimming pool: The effects of self-talk on thought content and performance on water-polo tasks. *Journal of Applied Sport Psychology*, *16*(2), 138–150. https://doi.org/10.1080/10413200490437886

Hatzigeorgiadis, A., Zourbanos, N., Goltsios, C., & Theodorakis, Y. (2008). Investigating the functions of self-talk: The effects of motivational self-talk on self-efficacy and performance in young tennis players. *The Sport Psychologist*, *22*(4), 458–471. https://doi.org/10.1123/tsp.22.4.458

Helmstetter, S. (1982). *What to say when you talk to yourself*. Grindle Press.

Hudd, S., Dumlao, J., Erdmann-Sager, D., Murray, D., Phan, E., Soukas, N., & Nori, Y. (2000). Stress at college: Effects on health habits, health status and self-esteem. *College Student Journal*, *34*(2), 217–217.

Hurst, C. S., Baranik, L. E., & Daniel, F. (2013). College student stressors: A review of the qualitative research. *Stress and Health: Journal of the International Society for the Investigation of Stress*, *29*(4), 275–285.

Jemmer, P. (2009). Self-talk: The spells of psycho-chaotic sorcery. *European Journal of Clinical Hypnosis*, *9*(1), 51–58.

Jobe-Shields, L., Cohen, R., & Parra, G. R. (2011). *Patterns of Change in Children's Loneliness: Trajectories from Third Through Fifth Grades* (1st ed., Vol. 57). Merrill-Palmer Quarterly.

Jones, A. C., Schinka, K. C., van Dulmen, M. H. M., Bossarte, R. M., & Swahn, M. H. (2011). Changes in loneliness during middle childhood predict risk for adolescent suicidality indirectly through mental health problems. *Journal of Clinical Child & Adolescent Psychology*, *40*(6), 818–824. https://doi.org/10.1080/15374416.2011.614585

Jowett, B. (2011). *Dialogues of Plato: Volume 2: Translated into English, with analyses and introduction*.

Kasser, T., & Sheldon, K. M. (2002). What Makes for a Merry Christmas? *Journal of Happiness Studies*, *3*(4), 313–329. https://doi.org/10.1023/A:1021516410457

Kelly, A. C., Zuroff, D. C., & Shapira, L. B. (2009). Soothing oneself and resisting self-attacks: The treatment of two intrapersonal deficits in depression vulnerability. *Cognitive Therapy and Research*, *33*(3), 301–313. https://doi.org/10.1007/s10608-008-9202-1

Kendall, P. C., Howard, B. L., & Hays, R. C. (1989). Self-referent speech and psychopathology: The balance of positive and negative thinking. *Cognitive Therapy and Research*, *13*(6), 583–598. https://doi.org/10.1007/BF01176069

Kent, G., & Gibbons, R. (1987). Self-efficacy and the control of anxious cognitions. *Journal of Behavior Therapy and Experimental Psychiatry*, *18*(1), 33–40. https://doi.org/10.1016/0005-7916(87)90069-3

Kumaraswamy, N. (2013). Academic stress, anxiety and depression among college students – a brief review. *International Review of Social Sciences and Humanities*, *5*(1), 135–143.

Lamke, L. K., Lujan, B. M., & Showalter, J. M. (1988). The case for modifying adolescents' cognitive self-statements. *Adolescence*, *23*(92), 967–974.

Latham, G. P., & Budworth, M.-H. (2006). The effect of training in verbal self-guidance on the self-efficacy and performance of Native North Americans in the selection interview. *Journal of Vocational Behavior*, *68*(3), 516–523. https://doi.org/10.1016/j.jvb.2005.11.005

Leary, M. R. (1990). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology*, *9*(2), 221–229. https://doi.org/10.1521/jscp.1990.9.2.221

Ma, H. K., & Leung, M. C. (1991). Altruistic orientation in children: Construction and validation of the Child Altruism Inventory. *International Journal of Psychology*, *26*(6), 745–759. https://doi.org/10.1080/00207599108247163

Mann, M., Hosman, C. M. H., Schaalma, H., & de Vries, N. K. (2004). Self-esteem in a broad-spectrum approach for mental health promotion. *Health Education Research*, *19*(4), 357–372. https://doi.org/10.1093/her/cyg041

Mayer, J. D., & Gaschke, Y. N. (1988). The experience and meta-experience of mood. *Journal of Personality and Social Psychology*, *55*, 102–111.

McLafferty, M., Lapsley, C. R., Ennis, E., Armour, C., Murphy, S., Bunting, B. P., Bjourson, A. J., Murray, E. K., & O'Neill, S. M. (2017). Mental health, behavioural problems and treatment seeking among students commencing university in Northern Ireland. *PLoS ONE*, *12*(12). https://doi.org/10.1371/journal.pone.0188785

Mead, G. H. (1934). *Mind, self, and society: From the standpoint of a social behaviorist*. University of Chicago Press.

Meichenbaum, D. (1977). Cognitive behaviour modification. *Scandinavian Journal of Behaviour Therapy*, *6*(4), 185–192. https://doi.org/10.1080/16506073.1977.9626708

Morin, A., Duhnych, C., & Racy, F. (2018). Self-reported inner speech use in university students. *Applied Cognitive Psychology*, *32*(3), 376–382. https://doi.org/10.1002/acp.3404

Multon, K. D., Brown, S. D., & Lent, R. W. (1991). Relation of self-efficacy beliefs to academic outcomes: A meta-analytic investigation. *Journal of Counseling Psychology*, *38*(1), 30–38. https://doi.org/10.1037/0022-0167.38.1.30

National College of Ireland. (2018). *National College of Ireland's Ethical Guidelines and Procedures for Research involving Human Participants* . https://mymoodle.ncirl.ie/pluginfile.php/130027/mod_resource/content/1/NCI%20Ethics%20Revised%20Feb%202018.pdf

Neck, C. P., & Manz, C. C. (1992). Thought self-leadership: The influence of self-talk and mental imagery on performance. *Journal of Organizational Behavior*, *13*(7), 681–699. https://doi.org/10.1002/job.4030130705

New, J. (2017). Balancing response and treatment. *Inside Higher Ed*.

Noguchi, S. (2014). Teen health: Depression, anxiety and social phobias rising in kids, educators say. *San Jose Mercury News*.

Novotney, A. (2014). Students under pressure. *Monitor on Psychology*, *45*(8), 36.

Oliver, E. J., Markland, David., & Hardy, James. (2010). Interpretation of self-talk and post-lecture affective states of higher education students: A self-determination theory perspective. *British Journal of Educational Psychology*, *80*(2), 307–323. https://doi.org/10.1348/000709909X477215

Orth, U., Robins, R. W., & Roberts, B. W. (2008). Low self-esteem prospectively predicts depression in adolescence and young adulthood. *Journal of Personality and Social Psychology*, *95*(3), 695–708. https://doi.org/10.1037/0022-3514.95.3.695

Pacheco, J. P., Giacomin, H. T., Tam, W. W., Ribeiro, T. B., Arab, C., Bezerra, I. M., & Pinasco, G. C. (2017). Mental health problems among medical students in Brazil: A systematic review and meta-analysis. *Revista Brasileira de Psiquiatria*, *39*(4), 369–378. https://doi.org/10.1590/1516-4446-2017-2223

Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, *66*(4), 543–578. https://doi.org/10.3102/00346543066004543

Palmer, S., & Williams, H. (2013). Cognitive behavioral approaches. In J. Passmore, D. B. Peterson, & T. Freire (Eds.), *The Wiley-Blackwell handbook of the psychology of coaching and mentoring* (pp. 319–338). Wiley Blackwell.

Payne, B. D., & Manning, B. H. (1998). Self-talk for teachers. *International Journal of Leadership in Education*, *1*(2), 195–202. https://doi.org/10.1080/1360312980010207

Philpot, V. D., Holliman, W. B., & Madonna, S. (1995). Self-statements, locus of control, and depression in predicting self-esteem. *Psychological Reports*, *76*(3), 1007–1010. https://doi.org/10.2466/pr0.1995.76.3.1007

Price, A., & Smith, H. (2019). *USI National Report on Student Mental Health in Third Level Education*.

Psychological Society of Ireland. (2010). *The Psychological Society of Ireland: Code of Professional Ethics (Revised November 2010)*. https://mymoodle.ncirl.ie/pluginfile.php/130028/mod_resource/content/1/PSI%202011-12%20Code%20of%20Ethics%5B2566%5D.pdf

Qualter, P., Brown, S. L., Rotenberg, K. J., Vanhalst, J., Harris, R. A., Goossens, L., Bangee, M., & Munn, P. (2013). Trajectories of loneliness during childhood and adolescence: Predictors and health outcomes. *Journal of Adolescence*, *36*(6), 1283–1293. https://doi.org/10.1016/j.adolescence.2013.01.005

Qualter, P., & Munn, P. (2002). The separateness of social and emotional loneliness in childhood. *Journal of Child Psychology and Psychiatry*, *43*(2), 233–244. https://doi.org/10.1111/1469-7610.00016

Qualter, P., Rotenberg, K., Barrett, L., Henzi, P., Barlow, A., Stylianou, M., & Harris, R. A. (2013). Investigating hypervigilance for social threat of lonely children. *Journal of Abnormal Child Psychology*, *41*(2), 325–338. https://doi.org/10.1007/s10802-012-9676-x

Reichl, C., Schneider, J. F., & Spinath, F. M. (2013). Relation of self-talk frequency to loneliness, need to belong, and health in German adults. *Personality and Individual Differences*, *54*(2), 241–245. https://doi.org/10.1016/j.paid.2012.09.003

Rosenberg, M. (1965). Rosenberg self-esteem scale. *Journal of Religion and Health*.

Scheier, M. F., & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current Directions in Psychological Science*, *2*, 26–30.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist*, *26*(3–4), 207–231. https://doi.org/10.1080/00461520.1991.9653133

Schunk, D. H., Meece, J. R., & Pintrich, P. R. (2012). Motivation in education: Theory, research, and applications. *Pearson Higher Ed*.

Simmons, R. G., Rosenberg, F., & Rosenberg, M. (1973). Disturbance in the self-image at adolescence. *American Sociological Review*, *38*(5), 553. https://doi.org/10.2307/2094407

Sinclair, S. J., Blais, M. A., Gansler, D. A., Sandberg, E., Bistis, K., & LoCicero, A. (2010). Psychometric properties of the Rosenberg self-esteem scale: Overall and across demographic groups living within the United States. *Evaluation & the Health Professions*, *33*(1), 56–80. https://doi.org/10.1177/0163278709356187

Sowislo, J. F., & Orth, U. (2013). Does low self-esteem predict depression and anxiety? A meta-analysis of longitudinal studies. *Psychological Bulletin*, *139*(1), 213–240. https://doi.org/10.1037/a0028931

Stanulis, R. N., & Manning, B. H. (2002). The teacher's role in creating a positive verbal and nonverbal environment in the early childhood classroom. *Early Childhood Education Journal*, *30*(1), 3–8. https://doi.org/10.1023/A:1016581612865

Syed, A., Syed, S. A., & Khan, M. (2018). Frequency of depression, anxiety and stress among the undergraduate physiotherapy students. *Pakistan Journal of Medical Sciences*, *34*(2), 468–471. https://doi.org/10.12669/pjms.342.12298

Tate, T. F. (2001). Peer influences and positive cognitive restructuring. *Reclaiming Children and Youth*, *9*, 215–218.

Theodorakis, Y., Weinberg, R., Natsis, P., Douma, I., & Kazakas, P. (2000). The effects of motivational versus instructional self-talk on improving motor performance. *The Sport Psychologist*, *14*(3), 253–271. https://doi.org/10.1123/tsp.14.3.253

Viola, J. K. (2021). *Education Self-Efficacy. Education evaluation toolkit*.

Vygotsky, L. S. (1934). *Thought and Language*. Mass: The MIT Press.

Weinberg, R., & Gould, D. (2006). *Foundations of sport and exercise psychology* (4th ed.). Human Kinetics.

Wilder, J. (1971). The psychology of self-esteem. A new concept of man's psychological nature. *American Journal of Psychotherapy*, *25*(2), 320–321. https://doi.org/10.1176/appi.psychotherapy.1971.25.2.320

Winsler, A. (2009). Still talking to ourselves after all these years: A review of current research on private speech. In A. Winsler, C. Fernyhough, & I. Montero (Eds.), *Private Speech, Executive Functioning, and the Development of Verbal Self-Regulation* (pp. 3–41). Cambridge University Press. https://doi.org/10.1017/CBO9780511581533.003

Winsler, A., & Naglieri, J. (2003). Overt and covert verbal problem-solving strategies: Developmental trends in use, awareness, and relations with task performance in children aged 5 to 17. *Child Development*, *74*(3), 659–678. https://doi.org/10.1111/1467-8624.00561

Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist*, *38*(4), 189–205. https://doi.org/10.1207/S15326985EP3804_1

Wolters, C. A., & Benzon, M. B. (2013). Assessing and predicting college students' use of strategies for the self-regulation of motivation. *The Journal of Experimental Education*, *81*(2), 199–221. https://doi.org/10.1080/00220973.2012.699901

World Health Organisation. (2016). *World Health Statistics 2016: Monitoring Health for the SDGs Sustainable Development Goals*.

Appendices

Appendix A: The Brief Mood Introspection Scale.

Brief Mood Introspection Scale (BMIS)

by John D. Mayer

INSTRUCTIONS: Circle the response on the scale below that indicates how well each adjective or phrase describes your present mood.

(definitely do not feel) (do not feel) (slightly feel) (definitely feel)

XX X V VV

Lively	XX X V VV	Drowsy	XX X V VV
Happy	XX X V VV	Grouchy	XX X V VV
Sad	XX X V VV	Peppy	XX X V VV
Tired	XX X V VV	Nervous	XX X V VV
Caring	XX X V VV	Calm	XX X V VV
Content	XX X V VV	Loving	XX X V VV
Gloomy	XX X V VV	Fed up	XX X V VV
Jittery	XX X V VV	Active	XX X V VV

Appendix B: The Rosenberg Self-Esteem Scale.

Scale:

Instructions

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

Strongly Agree Agree Disagree Strongly Disagree

2. At times I think I am no good at all.

Strongly Agree Agree Disagree Strongly Disagree

3. I feel that I have a number of good qualities.

Strongly Agree Agree Disagree Strongly Disagree

4. I am able to do things as well as most other people.

Strongly Agree Agree Disagree Strongly Disagree

5. I feel I do not have much to be proud of.

Strongly Agree Agree Disagree Strongly Disagree

6. I certainly feel useless at times.

Self Report Measures for Love and Compassion Research: *Self-Esteem* Fetzer Institute

Strongly Agree Agree Disagree Strongly Disagree

7. I feel that I'm a person of worth, at least on an equal plane with others.

Strongly Agree Agree Disagree Strongly Disagree

8. I wish I could have more respect for myself.

Strongly Agree Agree Disagree Strongly Disagree

9. All in all, I am inclined to feel that I am a failure.

Strongly Agree Agree Disagree Strongly Disagree

10. I take a positive attitude toward myself.

Strongly Agree Agree Disagree Strongly Disagree

Scoring:

Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

Appendix C: The Self-Talk Scale (STS).

I TALK TO MYSELF WHEN

1. I should have done something differently [self-criticism]
2. Something good has happened to me [self-reinforcement]
3. I need to figure out what I should do or say [self-management]
4. I'm imagining how other people respond to things I've said [social assessment]
5. I am really happy for myself [self-reinforcement]
6. I want to analyze something that someone recently said to me [social assessment]
7. I feel ashamed of something I've done [self-criticism]
8. I'm proud of something I've done [self-reinforcement]
9. I'm mentally exploring a possible course of action [self-management]
10. I'm really upset with myself [self-criticism]
11. I try to anticipate what someone will say and how I'll respond to him or her [social assessment]
12. I'm giving myself instructions or directions about what I should do or say [self-management]
13. I want to reinforce myself for doing well [self-reinforcement]
14. Something bad has happened to me [self-criticism]
15. I want to remind myself of what I need to do [self-management]
16. I want to replay something that I've said to another person [social assessment]

Appendix D: Educational Self-Efficacy Scale.

Item 1: How confident are you that you can complete all the work that is assigned in your modules?

Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

Item 2: When complicated ideas are presented in your modules, how confident are you that you can understand them?

Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

Item 3: How confident are you that you can learn all of the material presented in your modules?

Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

Item 4: How confident are you that you can do the hardest work that is assigned in your modules?

Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

Item 5: How confident are you that you will remember what you learned in your current modules, next year?

Not at all confident	Slightly confident	Somewhat confident	Quite confident	Extremely confident

Appendix E: Participant Information Leaflet & Consent Form

The impact of self-talk on college students' self-esteem, learning, and mood.

You are being invited to take part in a research study. Before deciding whether to take part, please take the time to read this document, which explains why the research is being done and what it would involve for you. If you have any questions about the information provided, please do not hesitate to contact me using the details at the end of this sheet.

What is this study about?

My name is Amanda Carroll. I am a final year student in the BA in Psychology programme at National College of Ireland. As an undergraduate I am required to complete an independent research project on a topic in the field of Psychology. The purpose of my project is to investigate the impact of self-talk on college students' self-esteem, learning, and mood. The study aims to further understand the influences of self-talk on undergraduate students' self-esteem, learning, and mood. The term self-talk used in this study refers to a person's inner voice. It is the talk or thoughts we direct at ourselves. The project will be supervised by Dr. Amanda Kracen.

What will taking part in the study involve?

If you provide consent to participate in this research study, you will first have to complete an online survey. The survey will measure self-esteem, mood, self-talk engagement, and learning scores. There will be a total of 47 questions, and it will take approximately fifteen minutes to complete. You will then submit your answers and be issued a thank you note alongside a debriefing form.

Who can take part?

You can take part in this study if you are enrolled in third level education as an undergraduate student and are aged 18 years and above.

You cannot take part in this study if you are not enrolled in third level education as an undergraduate and are under the age of 18.

Do I have to take part?

Participation for this research is voluntary, meaning you do not have to take part. You will receive no consequences for refusing to participate. You will receive no compensation for your participation in this study. You have the right to withdraw at any time during the study by exiting the tab of the survey. All information obtained from this study is anonymised and therefore following submission of the survey, the data provided will not be retrievable as there will be no possibility of identifying your results.

What are the possible risks and benefits of taking part?

There are no physical risks for participants in this study. However, considering the nature of the questions, there is a risk that participants might experience some emotional distress or discomfort during or after the questionnaire. If you experience this during the questionnaire, you are free to discontinue participation and exit the questionnaire by closing the browser tab. Contact information for relevant support services are also provided at the end of the questionnaire. While there will be no personal benefit for taking part, your participation may provide insight and help understand the impact of self-talk on undergraduate students and how it can affect their self-esteem, learning, and mood.

Will taking part be confidential and what will happen to my data?

The online survey will be completely anonymous; therefore, your identity will be secured, and the data derived from the survey answers will be stored using an unidentifiable basis. In addition, the data will be stored on a password-protected file on the researchers USB drive that will be contained behind two locked doors in a locked filing cabinet that only the researcher will have access to. Some of the data may need to be shared with the project supervisor, but for educational purposes only. However, participants should note that once the survey is submitted, their information will not be retrievable as there will be no possibility of identifying your results as the survey will be completed anonymously. Under the freedom of legislation act, data will be stored for five years after completion (2027).

What will happen to the results of the study?

The results of this study will be presented in my final dissertation, which will be submitted to National College of Ireland.

Who should you contact for further information?

If you have any questions, queries, or concerns regarding the nature of the study or your involvement in it, please feel free to contact me using the below information.

Researcher Name: Amanda Carroll

Contact Information: x19405836@student.ncirl.ie

Supervisor: Dr. Amanda Kracen

Contact Information: amanda.kracen@ncirl.ie

Appendix F:
Informed Consent

Please tick the box provided to confirm that:

1. Your aged above 18 years.
2. You are currently enrolled in a third-level institution as an undergraduate student.
3. You have carefully read and fully understand the information provided above and consent to participate in the study.

Consent

I agree. ☐

Appendix G: Thank you note & Debriefing Form.

Thank you for the time and effort you gave while participating in this research study. As a reminder, your answers are entirely anonymous, and your data will be inserted into a password-protected file and stored on the researchers USB drive that will be contained behind two locked doors in a locked filing cabinet that the researcher will have access to and under the freedom of legislation act, data will be stored for five years after completion (2027).

Please don't hesitate to contact me if you have any queries, questions, or concerns regarding this study. The contact details are as follow: (Email – x19405836@student.ncirl.ie). You can also contact the below support services and helplines:

FOR FREE 24/7 SUPPORT IN A CRISIS, FREE-TEXT HELLO TO 50808

SpunOut Text Line:

'A confidential messaging service for in-the-moment anonymous support.'

Text: SPUNOUT or TALK to 086 1800 280

Aware:

'Providing online, phone and face to face support to all those affected by depression.'

Helpline (local): 1890 303 302

Email: supportmail@aware.ie

Samaritans:

'Provides a helpline service 24 hours a day, 365 days a year to those going through difficult times or facing a personal crisis.'

Helpline (24hr): 116 123

Niteline FREEPHONE

1800 793 793

Appendix H: Research Announcement Shared on Social Media
https://forms.gle/wZXFGdL9aadaaHEn7